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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,187	10/09/2003	Yao-Pang Chan	JIAN 183	7877
7590	03/17/2004		EXAMINER	
RABIN & CHAMPAGNE, P.C. Suite 500 1101 14th Street, N.W. Washington, DC 20005			NOVOSAD, CHRISTOPHER J	
			ART UNIT	PAPER NUMBER
			3671	

DATE MAILED: 03/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/681,187	CHAN, YAO-PANG <i>O/P</i>
	Examiner Christopher J. Novosad	Art Unit 3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1 and 2 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: ____ . |

DETAILED ACTION

Claim Objections

Claims 1 and 2 are objected to because of the following informalities:

The recitation “the said” in claim 1, lines 5, 6, 7, 8 (two occurrences), 9, 10 (two occurrences), 11 (two occurrences), 12 (three occurrences), 13 (three occurrences), 17 and in claim 2, lines 2 (three occurrences), 4 and 5 (three occurrences) is redundant and should be corrected to --the-- or --said--.

The recitation “the dispensed said fertilizer” in claim 1, lines 15 and 16 is redundant and should be corrected to --the fertilizer-- or --said fertilizer--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

The claims are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified.

The term "long" in claim 1, lines 4, 7, 8, 9 and 13; "sharp" in claim 1, lines 7 and 13; "healthily" in claim 1, line 16; "safely" in claim 1, line 16; "convenient" in claim 2, line 6; and "easy" in claim 2, line 7 is a relative term which renders the claim indefinite. The terms "long", "sharp", "healthily", "safely", "convenient" and "easy" are not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

The recitation "worm gear feed rod" in claim 1, lines 3, 5, 11 and 12 is inaccurate since the feed rod 3 is not a worm gear but is rather an auger.

In claim 1, lines 5 and 6, the recitation "the rotational force" lacks proper antecedent basis since a drive mechanism would not always have to provide "rotational force" but could instead provide translational, linear, oscillating, vibrational, etc. forces.

Claim 1, an apparatus claim, is indefinite since the claim improperly recites method steps in lines 9-18 and is therefore indefinite.

Claim 2 is rendered indefinite since applicant improperly seeks to link positively recited structure, i.e. the drive mechanism, to functionally recited structure, i.e. the controller, and therefore the metes and bounds of the claim cannot be properly ascertained because it is unclear if it is applicant's intention to positively claim the controller. Note line 4 of claim 1 which functionally sets forth the controller through the recitation "enabling...".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirschmann in view of Menze and Alwes *et al.*

As to claim 1, Kirschmann shows a granular material (col. 2, line 39) applicator (col. 2, line 38) comprised of a container 5 filled with a granular material (col. 2, line 39), the container 5 having sloping surfaces 6,7,14 (Fig. 3) at the bottom (unnumbered; Fig. 3) that converge into an output opening (unnumbered; Fig. 3) below; a “worm gear” (should really be an auger as noted above) feed rod 12,13,13a,13b that provides for pushing the granular material (col. 2, line 39) into a pipe 18 or 23, a container output port (unnumbered), and then through a pliant delivery hose 21 (note col. 5, lines 20 and 21), the “worm gear” (should really be an auger as noted above) feed rod 12,13,13a,13b subjected to rotational force of a drive mechanism W,39,40,36,35 to which it is coupled, the pliant delivery hose 21 (note col. 5, lines 20 and 21) conjoined to the pipe 18 or 23, with a “sharp” scoop tip 28 disposed at the output portion 22,27 of the pipe 23.

The recitation “when the said long pipe sharp scoop tip is moved to the root section of a flower plant, pressing the said switch causes the said drive mechanism to start the rotation of the said worm gear feed rod, forcing the said fertilizer downward under pressure through the said output opening to the said worm gear feed rod and into the said pliant delivery hose, the said long pipe, the said sharp scoop tip, and onto the root section; enabling the operator, based on

actual site requirements, to set a controller for achieving complete control over the quantity and application of the dispensed said fertilizer and, furthermore, healthily and safely protecting the hands because there is no contact with the said fertilizer, while saving physical energy by not requiring the scattering of fertilizer by hand” in lines 9-18 of claim 1, in addition to being indefinite as noted above for improperly reciting method steps, is considered to be functional and has not been given weight.

Similarly, the recitation “enabling the operator, based on actual site requirements, to set the controller to the intermittent on and the continuous on position to achieve fluctuating or constant fertilizer application in a manner that is convenient to operate, easy to utilize, and does not involve the fingers” in lines 4-7 of claim 2 is considered to be functional and has not been given weight.

The claims distinguish over Kirschmann in requiring (1) the granular material to be fertilizer; (2) there to be a manual switch for starting and stopping the said drive mechanism; (3) the drive mechanism to be connected to the controller, and the controller to consist of three switchable operating modes: a power off mode, an intermittent on mode, and a continuous on mode.

With respect to (1), Menze discloses in col. 1, lines 15 and 16 “granular material such as...fertilizers”.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized fertilizer as a granular material as disclosed in Menze in the apparatus of Kirschmann for greater diversity and versatility of use for the apparatus.

As to (2) above, Alwes *et al.* show the use of a manual switch 35 (Fig. 1) for starting (switch 35 in the middle position in Fig. 1) and stopping (switch 35 in the lower position in Fig. 1) a drive mechanism 5 for an auger 3.

Regarding (3) above, Alwes *et al.* show a drive mechanism 5 connected to a controller (right side of Fig. 1), the controller (right side of Fig. 1) consisting of three switchable operating modes: power off (switch 35 in the lowest position in Fig. 1), intermittent on (switch 35 in the middle position in Fig. 1 with the relay 28 functioning providing for intermittency), and a continuous on (switch 35 being in the middle position in Fig. 1 and the relay 28 being in a position in which electricity freely flows through the relay or, alternatively, in a position with switch 35 being in the uppermost position and switch 33 being closed in Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized the drive 5 and the switch 35/control circuit (right side of Fig. 1) of Alwes *et al.* in place of the wheel drive mechanism W,39,40,36,35 of Kirschmann for greater user control and for greater granular material/fertilizer placement control.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher J. Novosad whose telephone number is 703-308-2246. The examiner can normally be reached on Monday-Thursday 5:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Will can be reached at 703-308-3870. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Christopher J. Novosad
Primary Examiner
Art Unit 3671

March 12, 2004